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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,768	03/07/2002	Dieter Kress	2147.GLE.PT	8295
26986	7590	07/28/2004	EXAMINER	
MORRIS O'BRYANT COMPAGNI, P.C.			WALSH, BRIAN D	
136 SOUTH MAIN STREET			ART UNIT	
SUITE 700			PAPER NUMBER	
SALT LAKE CITY, UT 84101			3722	

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,768

Applicant(s)

KRESS ET AL.

Examiner

Brian D. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14, 17-22, 24, 25 and 28-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14, 17-22, 24, 25 and 28-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 9, 12 – 14, 17 – 20, 22, 24 and 28 – 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks (U.S. Pat. No. 3,896,532) in view of Lyon et al. (U.S. Pat. No. 5,100,269, hereinafter “Lyon”).

Regarding claims 9, 20 and 24, Brooks discloses a tool comprising a blade plate (44) of triangular shape having a front side, a cutter formed at one apex of the shape opposite an inner side of the triangular shape (best shown in figure 2). Brooks further discloses a clamping lug (48) to assist in retaining the cutting insert within the tool holder.

Regarding claim 12, Brooks discloses the body of the tool holder is at least partially cylindrical (col. 3, lines 25 – 26). Clearly the tool is centered about a longitudinal axis.

Regarding claim 14, it is clear in figure 2 that the cutter has a radius of curvature.

Regarding claims 18 and 20, Brooks discloses the body of the tool holder has a radially extending arched projection (32) located in proximity to the cutting insert, the projection supporting the cutting insert (col. 3, lines 59 – 62).

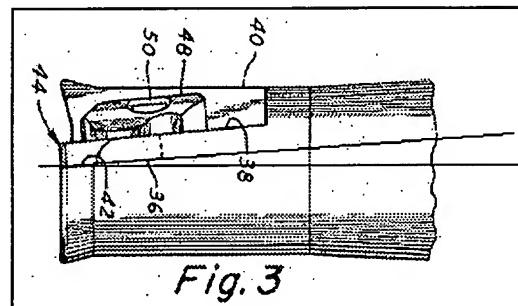
Regarding claim 19, it is clear that the tool body of Brooks is constructed as one piece, whether unitary or combined from individual elements.

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Regarding claim 22, it is clear that the projection (32) of Brooks extends circumferentially from a point near the blade plate (42) to (and well beyond) a distance of about 90 degrees about the long axis of the tool body.

Regarding claim 29, Brooks discloses the cutter extends radially from the base body. Brooks also discloses (in figure 3) that the front side of the blade plate is oriented at an acute angle with respect to a plane transecting the central axis of the tool body.

Regarding claim 30, while it is understood that illustrations in patents are not necessarily drawn to scale, the acute angle (of claim 29) disclosed by Brooks is measured to be approximately 6 degrees,



in the center of the range (4 – 8 degrees) claimed by Applicant. It is therefore reasonable to assert that Brooks discloses this element of the invention.

Brooks discloses all of the elements as set forth in the above rejections, however, Brooks shows that the cutting insert includes a central hole that permits a clamping plate, placed over a pin, to retain the insert within the holder. Brooks fails to disclose a linear groove on the triangular cutting insert.

Regarding claims 9, 20 and 24, Lyon discloses a cutting tool similar to the instant invention comprising a tool holder (50), a cutting insert (10) and a clamping plate (72) for retaining the cutting insert within the holder. Lyon discloses using a linear groove (36) in the cutting insert extending parallel to a rear surface (16) of the insert in combination with the clamping plate (72).

Regarding claim 13, it is clear that the groove on the tool of Lyon is “in close proximity to the cutter.”

Regarding claims 17 and 28, Lyon teaches a clamping arm (72) that includes two non-parallel lateral surfaces at an acute angle to one another (see figure 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the clamping hole of Brooks with the linear groove and clamping arm taught by Lyon since Lyon teaches this arrangement in a cutting tool holder in order to assist in accurately placing the insert with respect to the holder in a repeatable manner (col. 3, lines 20 – 23).

2. Claims 10, 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Lyon and in further view of Minshall (U.S. Pat. No. 6,196,774).

Regarding claims 10, 11 and 25, Brooks, as modified by Lyon, disclose all of the elements as set forth in the above rejections. Lyon discloses a groove in the top surface of the insert but is silent with respect to the angle with which an edge of the groove makes with the plane of the front side of the blade.

Minshall discloses a cutting insert (21) including a groove (32) on the top (31) of the insert that has an angle of *approximately* 10 degrees (see figure 4) with the bottom surface of the insert. Minshall states the angle can be between 10 and 20 degrees (col. 1, lines 47 – 54 and col. 3, lines 7 – 14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the groove of Brooks, as modified by Lyon, to have an angle of about 10 degrees as taught by Minshall since Minshall inherently teaches the use of this angle in

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order to provide a surface for engaging a clamping arrangement used to retain the tool within the holder.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brooks in view of Lyon and in further view of Sorice (U.S. Pat. No. 3,887,974).

Regarding claim 21, Brooks and Lyon disclose all of the elements as set forth in the above rejections, however, they fail to disclose the use of a shim (or spacer) in the cutting tool.

Sorice discloses a cutting tool and holder similar to the instant invention comprising an elongate shank (10), clamping member (22), grooved insert (24/18) and radial projection. Sorice discloses the use of a shim (34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the holder of Brooks, as modified by Lyon, to include the shim as taught by Sorice since it is inherent that a shim can be used to supply a holder with a replaceable seating surface for a cutting insert (col. 2, lines 48 – 55).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Severson (U.S. Pat. No. 3,027,786), Erkfritz (U.S. Pat. No. 3,354,526), Penoyar (U.S. Pat. No. 3,574,911), Wiman et al. (U.S. Pat. No. 5,810,518) and Japanese Patent Documents (59224203) and (55065004) show similar cutting tools.

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Response to Arguments

5. The Examiner has considered Applicant's arguments, but they are moot in view of the new grounds for rejection.

Faxing of Responses to Office Actions

6. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to all Office Actions directly into the Group at (703) 872-9306. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the Examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 8:30 A.M. to 6:00 P.M., with every-other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW

July 15, 2004



A. L. WELLINGTON

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700